DOCUMENT RESUME

ED 327 839 CS 010 397

AUTHOR Eanes, Robin; Tutchings, Terry
TITLE An Evaluation of a College Developmental Reading Program.
PUB DATE Dec 90
NOTE 16p.; Paper presented at the Annual Meeting of the American Reading Forum (11th, Sarasota, FL, December 12-15, 1990).
PUB TYPE Reports - Evaluative/Feasibility (142) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS College Freshmen; Higher Education; *Instructional Effectiveness; *Program Evaluation; Reading Research; Remedial Programs; *Remedial Reading
IDENTIFIERS Saint Edwards University TX

ABSTRACT

A study examined the efficacy of the developmental reading program at St. Edwards' University and the "linked course model" in particular. Subjects, 100 of 365 first-time freshmen enrolled in the fall semester (excluding international students), had SAT or ACT scores low enough to be placed in the developmental reading program. At the end of one year of instruction, the 100 students in the reading program were compared to the remaining 265 students in terms of retention rate, cumulative hours, and cumulative grade point averages. Of the 88 students who actually enrolled in reading courses, 16 were enrolled in a biology class which was "linked" to a developmental reading and English course. In linked courses, reading material from the biology course was used in the developmental courses. Six of the students took the biology course but were enrolled in a non-linked reading course. The remaining 66 students were enrolled in non-linked reading courses. Results indicated that (1) the developmental group of students contained proportionately more males and minority group members than the other group of freshmen; (2) there were virtually equal outcomes for all groups of freshmen in terms of retention, cumulative hours, and cumulative grade point averages; (3) developmental students in linked courses achieved slightly more credit hours than did the developmental students in non-linked courses; and (4) the grade-point averages of linked-course, developmental students surpassed those of other students in reading courses. (Three tables of data are included.) (RS)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED327839

An Evaluation of a College Developmental Reading Program

A paper presented at the
American Reading Forum
December, 1990

by

DR. ROBIN EANES
and
DR. TERRY TUTCHINGS

St. Edward's University
3001 S. Congress Ave.
Austin, TX 78704

CS010397

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Robin Eanes
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☑ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy

Introduction

The demand for developmental reading classes at the college level is predicted to continue increasing (Cranney, 1987). Estimates identifying college freshmen who are inadequately prepared to meet the demands of college work range from 30% to 60% (Hennessey, 1990). To meet this challenge, the state of Texas began implementation last year of the Texas Academic Skills Program (TASP). In this program, all incoming freshmen are tested in reading, writing, and math; students who do not demonstrate competency are required to take the appropriate remedial courses and will have to pass the tests before being allowed to take any junior level courses.

Although private colleges and universities are not required to participate in the TASP, one private four-year liberal arts university in Austin, Texas has had a similar program in place for years. St. Edward's University, which today has an undergraduate enrollment of about 2,000 full-time equivalent students, began its developmental reading program for underprepared students in the late 1960's in the form of a modest reading lab. Today, the developmental reading program consists of four credit-bearing courses and is part of a comprehensive program which also includes English, writing, listening and math. As part of the university's "Basic Skills Requirement," the developmental reading program is designed to serve students who have the intelligence and desire to pursue a college education, but who lack the necessary experience and preparation in reading to meet college-level demands. The principal goals of the program in serving the educational and career needs of its students are to develop the reading skills necessary to allow students to successfully undertake their college studies and to become efficient lifetime readers.

Increased retention is the ultimate goal of the program as the university strives to fulfill its mission, and the developmental reading program is central to the university's mission in several ways. First, it aims to fulfill the university's commitment to provide educational opportunities to all those with potential.

Second, the program addresses the university's commitment to provide a quality education to students from a variety of backgrounds, including those which have left students underprepared for college. The current and potential demand for the reading program comes from a wide cross-section of prospective students; the reading classes include traditional students, adult students, Anglo-American students, American minority students, and international students. Third, since reading is a receptive communication skill, the program goals directly contribute to the university's emphasis on communication skills. Fourth, the reading curriculum goals mirror the university's commitment to critical thinking and values clarification.

The effectiveness of the reading program, therefore plays an important role in the success of the university's mission as a whole. If program efficacy can be demonstrated, it will provide evidence that the university is at least partially fulfilling the above components of its mission. If program success cannot be demonstrated, then alternative curricular structures and methodologies should be considered. In light of the increasing demand for college level developmental reading courses, if this program can demonstrate success, then it would serve as a curricular model for other institutions serving similar populations of students. Even if success is not demonstrated in this study, the results should at least provide valuable implications for college developmental reading curricula in general.

Background

During the late 1970's a reading course was set up at St. Edward's in the form of a lab using a "mastery learning" or "systematic instruction" approach, as recommended by developmental reading specialists at that time (Roueche and Snow, 1977). After students were pretested over isolated skills, an individualized program was set up for them, and they worked at their own pace in materials designed to strengthen specific reading skill weaknesses. Grades were given on a Pass/No Pass basis, and in order to pass the course,

students had to demonstrate competency on a standardized reading test.

In the early 1980's, the reading lab course was split into four separate courses: an upper and lower level course for American students, and an upper and lower level course for international students. The grading system was shifted from Pass/No Pass to A, B, C, No Pass. The format of the course was changed from a lab setting to a more traditional classroom setting, with a maximum of 15 students per class.

More recently, course content has been revised to reflect the changing recommendations made by developmental reading specialists and researchers who say that the transferability of instruction in isolated skills in meeting the demands of college reading is questionable at best (Mealey, 1990; Moore and Readence, 1983). During the last three years, the St. Edward's developmental reading course curriculum has shifted from an isolated skills approach to a whole language content-based approach as recommended by many reading specialists and researchers to enhance motivation, develop critical thinking, and facilitate transferability of skills in meeting the reading demands of their content courses (Erlich and Kennedy, 1983; Gruenberg, 1983; Mealey, 1990; Nist and Simpson, 1987; Roueche, 1983; and Stone, 1990).

The reading courses now focus on providing a wide variety of "real-life" reading experiences, using articles and excerpts from such areas as current events, science, history, literature, psychology, and math. Students are taught different strategies for different types of reading, and for identifying and learning specialized vocabulary in different fields. Materials come from actual college course content, and students are taught how to apply critical thinking in responding to reading assignments. In addition to completing writing assignments, students are also required to do library research, and are taught how to accurately report from sources. No longer is the primary goal of the course improved performance on a standardized test; rather, the goal is now to improve overall effectiveness and efficiency with reading

assignments in other classes. Reading course instructors have reported that motivation appears to have improved, perhaps because students can more easily recognize the benefits of the course in relation to their college reading assignments.

The algorithm for placing students into developmental courses involves students' SAT or ACT scores and their scores on the Test of Standard Written English (TSWE). Students with scores in the upper range are automatically exempt from taking any developmental reading or English courses. Students with scores in the lower range are automatically placed into developmental reading and/or English courses; they are then tested during orientation to determine whether they will have to take one or two semesters of reading and/or English. Students with scores in the middle range are tested during orientation with a standardized reading test and a holistically scored essay to determine placement or exemption.

The "Linked Course" Model

As currently structured in the general university curriculum, the reading courses receive no credit towards a degree, and as a result, are justifiably perceived by students as separate from and less important than their "real" course work (e.g. English, political science, biology, and history). To increase the value of the reading courses as support for content courses, and to further facilitate students' abilities to transfer skills learned in the reading classes, a pilot project was implemented in the fall of 1989. In this project, one of the developmental reading classes was linked to one of the developmental English classes and a regular content course, i.e. biology. Students who registered for the reading class also had to register for the English and biology classes to which it was linked. As reported by Davis (1990), a similar structure was used successfully with secondary students.

In the St. Edward's linked course project, the reading materials and assignments given in biology were used for instruction in reading and study skills. The two developmental instructors met weekly with the biology instructor to find out the next week's

reading and writing assignments and to clarify performance expectations in the biology class. Then, the reading instructor used the assigned pages in the biology text to develop lessons to teach the independent use of such strategies and skills as SQ3R, outlining, highlighting, note taking, cognitive mapping, formulating questions at various levels of thought, summarizing, and annotating. Following instruction, students worked under supervision during class, then were given assignments which required them to apply the strategies and skills independently outside of class to complete the biology reading assignment.

Initial reactions by students and instructors were quite favorable, so the project was extended to the spring 1990 semester and expanded to add a second reading class, which was linked to political science and a developmental English course. Again, reactions were favorable, so the project was extended to the fall 1990 semester and expanded to include the following content courses linked to reading courses: biology, political science, criminal justice, and history.

Subjects and Variables

The purpose of this study was to examine the efficacy of the developmental reading program as a whole, and the "linked course model" in particular. Therefore, only the reading component of the linked model was investigated. The evaluation model which was used is similar to that proposed by Maring, Shea, and Warner (1987). The subjects were the 365 first-time freshmen enrolled in the fall 1989 semester. (International students were not included in this study.) Of those, 118 were placed into developmental courses, and the other 247 were automatically placed into the mainstream, traditional academic program. The first analysis compared these two groups on the following variables: sex, age, ethnicity and standardized test scores (SAT or ACT).

Of the 118 students placed into developmental courses in the fall semester of 1989, 100 were identified as needing to take one or more reading courses. In the second analysis, those 100 subjects

were compared to the other 265 freshmen who did not have to take a reading course at all; the comparison was done at the end of the spring 1990 semester using the following variables: retention rate, cumulative hours, and cumulative grade point averages.

In that comparison, the 100 subjects were placed into four categories. The first one included the 12 students who were supposed to take a reading course, but who managed somehow to avoid the requirement. (We called them "fugitives.") Then, of the 88 who did enroll in reading courses, 22 took the same biology course; of those 22 students, 16 were enrolled in the reading class which was linked to the biology class and to a developmental English class; the remaining six who took biology were enrolled in non-linked reading classes. The other 66 developmental reading students took non-linked reading classes and courses other than biology. In summary, the 100 subjects who were assigned to take at least one reading course were placed into these four categories:

(1) 12 "fugitives"
(2) 16 in reading course linked to biology and developmental English
(3) 6 in non-linked reading courses and biology
(4) 66 in non-linked reading courses and courses other than biology

The basic premise behind the linked-content course format was that the synergy generated by combining developmental reading with a content focus would result in better grades in reading and in content courses. This premise was tested in the third analysis by comparing subjects in the fall 1989 semester and the spring 1990 semester on the following variables: standardized test scores (SAT and ACT), standardized math test scores, content course grades, and reading course grades. The subjects were categorized as follows:

(1) students who took a non-linked reading class and the content course which was linked to one of the other reading classes
(2) students who took the reading class which was linked to a content course and a developmental English course
(3) other freshmen in the content courses who did not take a reading course

Results and Discussion

The results of the evaluation of the St. Edward's University developmental reading program are best considered in light of the overall characteristics of the entering class of traditional freshmen. The results of the first analysis show that the 118 students who were placed into developmental courses exhibit similarities and important differences when compared with their classmates. As indicated in Table 1, the developmental student group contained proportionately more males and more minority group members than the other group of freshmen. Most strikingly, the developmental students were, on average, 77 points below their other classmates on SAT scores, and the developmental students with ACT scores trailed the other freshmen by 9 points on average.

The results of the second analysis, in which the four categories of the 100 subjects who were placed into reading courses were compared with the other freshmen who did not have to take a reading course, appear in Table 2. The end of the spring 1990 semester found virtually equal outcomes for the five groups of freshmen in terms of retention, cumulative hours (except as noted below) and cumulative grade point averages. With the exception of the relatively small number of developmental students who were in the biology course and the non-linked reading course (with five of the six returning in the spring 1990 semester), the retention rates overall were near 90 percent, and none of the differences is statistically significant. Cumulative hours attained are somewhat misleading in that the total does not include the developmental course hours. With those hours included, the developmental students' achievements mirror closely those of other students. The cumulative grade point averages differ significantly only for the non-linked students when compared with linked developmental students ($p=.09$) and with all others ($p=.06$). However, this difference must be viewed in light of the relatively small n for the non-linked students (6).

Table 3 contains the results of the third analysis, which specifically evaluated the linked course model. First, what is

obvious in comparing the reading students with other freshmen is that the reading students started each semester with markedly lower prerequisite skills as measured by the standardized tests. Except for the clearly anomalous statistical finding of "no significance" comparing spring semester biology students' SAT scores (a result of the small numbers of developmental students with SAT scores), all of the developmental students' averages in the standardized tests marked them as unlikely to be successful in competition with their better-prepared classmates. Even though standardized tests are not deemed here to be predictive of academic success, the average test scores of the reading students are so low that they raise some expectation that those students would have difficulties in traditional college courses.

The findings presented in Table 3 show convincingly that the developmental reading students did remarkably well in the fall semester, and less apparently, the spring semester finds encouraging outcomes. Statistically speaking, the reading students in the fall biology class did just as well as their freshman counterparts. Substantively, the reading students in the linked course scored best of the three groups in biology, while the non-linked reading students obtained the lowest average grade in biology; one student in each of the three groups received a failing grade in biology. Moreover, the linked reading students did better on average in reading than did their non-linked counterparts, although the difference is not statistically significant.

The spring semester results are mixed, but on balance they are encouraging with respect to the reading classes and the linked-course concept. One reason for the mixed results in the spring classes is that the students were not the same ones who participated in the fall linked courses. This is clear in that the standardized test scores are consistently lower for the non-developmental freshmen overall and the ACT scores for the spring-semester biology students are the lowest in the table. Similarly, SAT scores for the political science students are the lowest in the table. Furthermore, all of the spring-semester reading students

were in their second semester of developmental reading, indicating that perhaps they started out with greater deficiencies since they were required to take two reading courses. Another difference in the spring semester was that most of the unsuccessful students withdrew from classes instead of taking failing grades.

In biology, neither of the two groups fared well with spring grades. The linked students' biology average was insignificantly lower than that of the other students; one of the linked students failed the course (three withdrew), and three of the others failed (11 withdrew). As for grades in reading, the low number of developmental students precludes any conclusions pertinent to the linked biology students, although their reading average was the lowest of any of the reading classes. Political science course results found only seven of the 13 reading students with successful outcomes. Two of the reading students withdrew and four received failing grades; other students showed a statistically-significant, better average grade in political science when compared with the linked-course reading students. The developmental students did relatively well overall in their reading classes.

Conclusions and Implications

Without question, the year-long results assessed for the fall semester pilot of the linked-course concept show the benefits called for in the university's mission and hoped for in the linked courses. The retention rate for all students was one of the best ever at the university, and the developmental students did as well as the mainstream students in this important goal area. Moreover, the developmental students did as well as other students in finishing course hours and obtaining respectable grades. Developmental students in linked courses achieved slightly more credit hours than did those developmental students in non-linked courses, and the grade-point averages of linked-course, developmental students surpasses those of other students in reading courses and those of the students who should have taken developmental courses, but did not.

The earlier assertion that "The spring semester results are mixed, but on balance they are encouraging with respect to the reading classes and the linked-course concept" marks the only low point of this evaluation. However, 14 of the 24 reading students passed both their spring reading course and a content course that counts for graduation; that ratio yields a success rate of 58.3 percent in a content course. Extending that idea to all of the reading students in the two-semester analysis, the success rate in content courses reaches 73.9 percent, and the linked-course reading students achieved a rate of 71.8 percent. Finally, considering only the fall semester developmental students, their overall success rate in content courses was 90.9 percent and the success rate of the linked course developmental students was 93.8 percent in the fall semester. Compared with the 87.4 percent overall success rate of the "better-prepared" non-developmental students, any one of the outcomes for the linked and non-linked students indicates that the St. Edward's developmental reading program has had success in preparing students for the challenges of their content courses.

Clearly this study provides support for continuation of the developmental reading program in general, and the linked-course format in particular. The baseline data obtained in this investigation will provide the foundation for an ongoing annual evaluation of the program to ensure adequate support in reading for developmental students. A similar study will be conducted at the end of the 1990-91 academic year, which saw an expansion of the linked-course format, and the results will be compared to those for 1989-90. Plans are underway for linking the developmental reading and English courses to Freshman Studies, the humanities course required of all freshmen, in the fall of 1991.

During the spring 1990 semester, it became apparent both to the developmental instructors as well as the content instructors that, as confirmed by research (Mealey, 1990; Roueche and Snow, 1977), one of the most important variables in the academic success of these students was attitude and motivation. Therefore, attitude and motivation will also investigated for the 1990-91 year.

Table 1
Comparison of Entering Traditional Freshmen: Developmental vs. Other Freshmen

	Developmental*	Other Freshmen	Totals
	118	247	365
Female	60 (50.9%)	143 (57.9%)	203
Male	58 (49.1%)	104 (42.1%)	162
Age	18.6	18.6	18.6
Ethnicity			
Black	7 (5.9%)	3 (1.2%)	10
Hispanic	65 (55.1%)	77 (31.2%)	142
White	44 (37.3%)	140 (56.7%)	184
Other	2 (1.7%)	6 (2.4%)	8
Foreign	- (-)	21 (8.5%)	21
SAT**	m-52	m+25	m
ACT**	m-6	m+3	m

*Placed in one or more developmental courses (reading, English, math); 88 placed in reading. The 21 foreign students are not counted among developmental students for this study.

**Read as class mean (m) plus or minus.

Table 2

Overall Results at the End of Spring 1990 Semester Comparing "Fugitives," Developmental Students and All Other Traditional Freshmen

	"Fugitives"	Others	Developmental Reading Non-Linked	Linked	All Others	Total
n	12	66	6	16	265	365
returned	11	60	5	14	239	329
rate	91.7%	90.1%	83.3%	87.5%	90.2%	90.1%
cum. hours	28.0	21.6	21.6	22.2	28.7	*
cum. GPA	2.523	2.591	2.400	2.654	2.802	** 2.742

*Not a valid total because developmental courses do not add to cumulative hours.

**Excluding grades in developmental courses.

Table 3
Comparison of Developmental and Other Freshmen Students In Linked Courses

	Developmental Reading		Other Freshmen	
Fall 1989	Non-linked	Linked	Biology	P
n	6	16	52	
SAT	m-211	m-163	m-8	.0018
ACT	m-8.5	m-5.4	m-2	.0441
Math	27.5	27.4	30.7	.0233
Bio.Grade	2.000	2.438	2.385	n.s.
Rdg.Grade	2.333	2.875	-	n.s.

Spg 1990	Non-linked	Linked	Biology	P
n	2	11	51	
SAT	m-109	m-144	m-44	n.s.
ACT	m-10	m-8.9	m-3	.0032
Math	22.5	21.1	29.7	.0008
Bio.Grade	-	1.091	1.784	n.s.
Rdg.Grade	3.5	2.182	-	n.s.

Spg 1990	Non-linked	Linked	Political Science	P
n	1	12	48	
SAT	m-239	m-194	m-58.5	.0868
ACT	-	m-6.4	m-1.6	.0165
Math	23.00	22.7	28.3	.0103
P.S.Grade	2.000	1.083	2.139	.0037
Rdg.Grade	3.000	2.583	-	n.s.

References

Cranney, A. G. "The improving professionalization of postsecondary developmental reading." Journal of Reading, vol. 30 (May 1987), pp. 690-700.

Davis, S. J. "Applying content study skills in co-listed reading classrooms." Journal of Reading, vol. 33 (January 1990), pp. 277-281.

Erlich, H. E. and Kennedy, M. L. "Skills and Content: Coordinating the Classroom." Journal of Developmental Education, vol. 6 (Spring 1983), pp. 24-27.

Gruenberg, D. E. "College basic skills programs: A national survey." Journal of Developmental Education, vol. 6 (Spring 1983), pp. 2-3.

Hennessey, J. H. "At-risk community college students and a reading improvement course: A longitudinal study." Journal of Reading, vol. 34 (October 1990), pp. 114-120.

Maring, G. H., Shea, M. A., and Warner, D. A. "Assessing the effects of college reading and study skills programs: A basic evaluation model." Journal of Reading, vol. 30 (February 1987), pp. 402-408.

Mealey, D. L. "Understanding the motivation problems of at-risk college students." Journal of Reading, vol. 33 (May 1990), pp. 598-601.

Moore, D. and Readence, J. E. "Approaches to Content Area Reading Instruction." Journal of Reading, vol. 26 (February 1983), pp. 397-402.

Nist, S. L. and Simpson, M. L. "Facilitating transfer in college reading programs." Journal of Reading, vol. 30 (April 1987), pp. 620-625.

Roueche, J. E. and Snow, J. J. Overcoming Learning Problems. San Francisco, CA: Jossey-Bass.

Stone, N. R. "Developing critical thinkers: content and process." Journal of Developmental Education, vol. 13 (Spring 1990), pp. 20-26.